

### Remarks

Applicant's response to the non-final Office Action mailed February 25, 2010 is below.

Claims 1-19 are currently pending in the application. Through this Response, claim 11 has been amended to correct a minor spelling error. No new matter has been added, as the spelling error was not present in the claim as filed but was inadvertently introduced into the claim by way of preliminary amendment.

Upon entry of this amendment, claims 1-19 will be pending in the application.

#### I. Claim Rejections under 35 U.S.C. §103 over Nishijima in view of William

Claims 1-3, 5-7, 9-16, 18 and 19 were rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 5,899,941 to Nishijima *et al.* (hereinafter "*Nishijima*") in view of U.S. Publication No. 2004/0010316 to William *et al.* (hereinafter "*William*"). Applicant traverses.

Independent claims 1 and 11 both recite a cervical spine intervertebral disc prosthesis that includes two pieces, each having a base part and a coupling part. The base part is formed with its associated coupling part as one piece from a single material, which is selected from the following group:

- polyetherketone (PEK),
- polyetheretherketone (PEEK),
- polyacryletherketone (PAEK),
- polyetherketoneketone (PEKK),
- polyetherketoneetherketoneketone (PEKEKK), and
- polyetherketoneetherketone (PEKEK).

The modulus of elasticity of these materials is similar to cortical bone, and by forming the parts as one piece, the implant can provide stability and permanent support that is not possible with implants formed from separate parts that are assembled together. *See Applicant's Specification*; paragraphs [0010]-[0012].

The claimed prosthesis would not have been obvious over *Nishijima* in view of *William* for two reasons. First, the cited combination does not teach or suggest a prosthesis with two one-piece parts, each one-piece part formed from a single material. Second, the cited combination does not teach or suggest coupling parts formed from one of the recited materials.

Both *Nishijima* and *William* generally teach implants having two-piece parts. *See Nishijima*; Figs. 9A, 9B, 10A, and 10B; and *William*, Figs. 1-43. In limited cases, *Nishijima* teaches an implant with parts that are formed as one piece, but *Nishijima* does not teach or suggest forming these one-piece parts from a single material. *See Nishijima*; Figs. 1-8. The Office Action states that *Nishijima* teaches forming the one-piece parts from a single material at column 5, lines 20-30, but that passage merely teaches

forming the parts from a material that has stability inside the body. *See Office Action*; page 2, citing *Nishijima*. *William* does not cure this deficiency of *Nishijima*.

Because the claimed one-piece parts are formed from a single material, the claimed coupling parts are formed from one of the recited materials. Neither of the cited references teach coupling parts formed from one of the claimed materials. *Nishijima* merely states the parts are formed from a material that is stable in the body, with aluminum, zirconia and ceramic being provided as examples. *Nishijima*; column 5, lines 20-30 and lines 37-42. *William* states that the “first and second implantable members 12, 14, respectively, or any part, may be manufactured from” a material such as PEEK and PEKEKK, but regarding the material used to form the alleged coupling parts (concave bodies 18 and 22), *William* is silent. *William*; paragraph [0065]. Thus, it is not clear that the coupling parts of *Nishijima* or *William* have a modulus of elasticity that is similar to cortical bone, while the claimed coupling parts would have such a modulus of elasticity. For at least these reasons, independent claims 1 and 11, and the corresponding rejected dependent claims, would not have been obvious over the cited combination, and Applicant asks the Examiner to withdraw the rejection.

## **II. Claim Rejections under 35 U.S.C. §103 over *Nishijima* in view of *William* and *Olge***

Claims 8 and 17 were rejected under 35 U.S.C. § 103(a) as unpatentable over *Nishijima* in view of *William* and in further view of U.S. Patent No. 6,322,588 to Ogle *et al.*. Each claim is patentable for at least the reasons described above with reference to the independent claim from which it depends. Therefore, Applicant asks the Examiner to withdraw the rejection.

**Conclusion**

For reasons provided above, Applicant submits that the pending claims are novel and would not have been obvious over the references of record. Therefore, Applicant respectfully asks the Examiner to reconsider the rejections and to allow each of the claims. Applicant invites the Examiner to call the Attorney below at any time if the Examiner believes a telephone conversation would facilitate the examination of this application.

Respectfully submitted,

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